

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions of claims in the application.

1. (Currently Amended) A method for detecting an ozone gas,
comprising a step of placing an ozonic gas detection indicator in an ozone gas treatment device, and confirming a color difference in the indicator,
wherein the ozone gas detection indicator comprises a color changing layer for detecting an ozone gas formed of an ink composition ~~for detecting an ozone gas; that has a plurality of cracks in the surface of the color changing layer,~~
wherein the ink composition for detecting an ozone gas comprises
at least one selected from the group consisting of azo dye, methine dye and triarylmethane dye,
a nitrogen-containing polymer,
a resin binder, wherein all or a portion of the resin binder is a cellulose resin,
and
a cationic surfactant.

2. (Canceled)

3. (Withdrawn) The method for detecting an ozone gas according to claim 1, wherein the cationic surfactant is at least one selected from the group consisting of an alkyl trimethyl ammonium salt, isoquinolinium salt, imidazolinium salt and pyridinium salt.

4. (Withdrawn) The method for detecting an ozone gas according to claim 1, wherein the ink composition further comprises at least one selected from the group consisting of extender and resin binder.

5. (Withdrawn) The method for detecting an ozone gas according to claim 1, wherein the ink composition further comprises at least one type of colorant which does not change color in an oxidizing gas atmosphere.

6. (Withdrawn) The method for detecting an ozone gas according to claim 1, wherein the ink composition further comprises an anthraquinone dye as a dye.

7. (Canceled)

8. (Withdrawn) The method for detecting an ozone gas according to claim 1, wherein the ink composition further comprises a non-color changing layer which does not change color in an oxidizing gas atmosphere.

9. (Previously Presented) An indicator for detecting hydrogen peroxide plasma sterilization, comprising a color changing layer formed of an ink composition, which has a plurality of cracks in the surface of the color changing layer,
wherein the ink composition comprises:

- 1) at least one selected from the group consisting of azo dye and methine dye,
- 2) a nitrogen-containing polymer,
- 3) a cationic surfactant, and
- 4) a resin binder, wherein all or a portion of the resin binder is a cellulose resin.

10. (Previously Presented) The indicator according to claim 9, wherein all or a portion of the nitrogen-containing polymer is a polyamide resin.

11. (Previously Presented) The indicator according to claim 10, wherein the polyamide resin is a reaction product of a dimer of linoleic acid and a di- or polyamine.

12. (Previously Presented) The indicator according to claim 9, wherein the cationic surfactant is at least one selected from the group consisting of an alkyl trimethyl ammonium salt, isoquinolinium salt, imidazolium salt and pyridinium salt.

13. (Previously Presented) The indicator according to claim 9, which further comprises an extender.

14. (Canceled)

15. (Previously Presented) The indicator according to claim 13, wherein all or a portion of the extender is silica.

16. (Previously Presented) The indicator according to claim 9, wherein the content of the nitrogen-containing polymer is 1 to 20% by weight of the ink composition.

17. (Previously Presented) The indicator according to claim 9, which further comprises at least one type of colorant which does not change color in a plasma sterilization treatment atmosphere.

18. (Previously Presented) The indicator according to claim 9, which further comprises at least one type of component which changes color by reacting with hydrogen peroxide.

19. (Previously Presented) The indicator according to claim 18, wherein the component which changes color by reacting with hydrogen peroxide contains ammonium aurintricarboxylate.

20. (Previously Presented) The indicator according to claim 9, which further comprises at least one type of organic amine.

21-22. (Canceled)

23. (Previously Presented) The indicator according to claim 9, which further comprises a non-color changing layer which does not change color in a plasma sterilization treatment atmosphere.

24. (Previously Presented) The indicator according to claim 9, which further comprises a colored layer which changes color in a hydrogen peroxide atmosphere.

25. (Original) The indicator according to claim 24, wherein the colored layer and the color changing layer are formed so as to be mutually overlapping.

26. (Original) The indicator according to claim 25, wherein the colored layer and the color changing layer are formed in a linear or spotted pattern so as not to be mutually overlapping.

27. (Previously Presented) A pouch for hydrogen peroxide plasma sterilization provided with the indicator according to claim 9 on an inner surface of a gas-permeable pouch.

28. (Original) The pouch according to claim 27, which is provided with a transparent window in a portion of the pouch so as to allow visual confirmation of the indicator from the outside.

29. (Original) The pouch according to claim 27, wherein the gas-permeable pouch is formed from polyethylene fibers.

30. (Previously Presented) A hydrogen peroxide plasma sterilization treatment method, comprising the steps of loading a treated material into the pouch according to claim 27, sealing the pouch with the treated material loaded therein, and placing the pouch in a hydrogen peroxide plasma sterilization atmosphere.

31. (Original) The method according to claim 30, wherein the pouch is placed in the hydrogen peroxide plasma sterilization atmosphere until the color changing layer of the indicator changes color.

32. (Previously Presented) A method for confirming hydrogen peroxide plasma sterilization treatment, comprising the steps of loading a treated material into the pouch according to claim 27, sealing the pouch with the treated material sealed therein, placing the pouch in a hydrogen peroxide plasma sterilization atmosphere, and confirming a color difference in the indicator of the pouch.

33. (Withdrawn – Currently Amended) A method for detecting a hydrogen peroxide gas, comprising a step of placing a hydrogen peroxide gas detection indicator in a hydrogen peroxide gas treatment device, and confirming a color difference in the indicator,

wherein the hydrogen peroxide gas detection indicator comprises a color changing layer formed of an ink composition for detecting a hydrogen peroxide gas having a plurality of cracks in the surface of the color changing layer,

wherein the ink composition for detecting a hydrogen peroxide gas comprises
methine dye;

a nitrogen-containing polymer;

a resin binder, wherein all or a portion of the resin binder is a cellulose resin; and

a cationic surfactant.